

DP-304144

EDGE-CONNECTED NON-THERMAL PLASMA
EXHAUST AFTER-TREATMENT DEVICE

ABSTRACT OF THE DISCLOSURE

An edge-connected non-thermal plasma reactor includes an element having an edge-connected frame comprising a pair of dielectric edge connectors secured at opposite ends to a pair of outer dielectric plates. The dielectric edge connectors have a backplane and a plurality of tines protruding along one major surface of the backplane. The tines are spaced apart from one another at regular intervals so as to form pockets between adjacent tines. Alternating polarity electrode plates comprising a dielectric barrier plate having an electrode and terminal connection lead disposed on the dielectric barrier are arranged within the edge-connected frame so as to define the presence of a dielectric barrier next to a plasma cell, with the pockets engaging opposite ends of the electrode plates. Double and single dielectric edge-connected reactor elements are provided.